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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,678	09/02/2003	Michael John Keogh		4598

7590 02/23/2006

Michael John Keoga
19 ABINGTON DRIVE
PINEHURST, NC 28374

EXAMINER

NGUYEN, CHAU N

ART UNIT PAPER NUMBER

2831

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/653,678	KEOGH, MICHAEL JOHN	
	Examiner	Art Unit	
	Chau N. Nguyen	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-39 and 42-51 is/are rejected.
- 7) ☒ Claim(s) 40 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 47 is objected to because of the following informalities: in claim 47, line 2, change "a" to --the--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 35-39 and 42-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (2002/0096356) in view of Weil et al. (5,578,666).

Kim et al. discloses a cable construction comprising an insulated wire ([0020]) and a dual layer polymer-based non-halogen protective sheath, consisting of an outer (second) solid organo, non-foamed polymer layer as means for providing thermal, physical and mechanical protection, and an inner (first) solid, non-foamed polymer layer as means for providing fire protection thereby

providing the cable construction with initial and long term protection against heat and combustion.

Kim et al. does not specifically disclose the outer layer being intumescent layer or comprising intumescent material (re claims 35 and 43) which is a melamine phosphate (re claim 37). Weil et al. discloses a flame retardant composition which is suitable for used as wire insulation and cable jacket and which comprises polypropylene (re claims 36 and 44) and an effective amount of intumescent material which is melamine phosphate. Weil et al. also discloses the melamine phosphate being in about 5 to about 100 parts by weight contained in 100 parts by weight of the polypropylene (re claims 38 and 45). It would have been obvious to one skilled in the art to use the flame retardant composition as taught by Weil et al. for the outer layer of Kim et al. to improve the flame retardant of the cable.

The modified cable of Kim et al. also discloses the inner layer being a polypropylene copolymer ([0030], ethylene-propylene thermoplastic elastomers) (re claim 43), the outer layer having a thickness of at least 1 mil ([0056]) (re claims 39 and 46) and the inner insulating layer being formed of a polypropylene copolymer and containing sufficient acid neutralizer which magnesium hydroxide ([0033]) (re claims 47 and 48). Re claim 42, the modified insulated conductor of

Kim et al. can be used in a plenum or riser cable since it comprises structure and material as claimed. Re claim 49, it would have been obvious to one skilled in the art to choose a suitable amount of the acid neutralizer in the inner layer of Kim et al. to meet the specific use of the resulting cable since the flame retardant of the cable can be adjusted by adjusting the amount of the acid neutralizer (magnesium hydroxide) as taught by Kim et al. and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Re claims 50 and 51, the modified insulated conductor of Kim et al. can be used as a building wire or an automobile primary wire since it comprises structure and material as claimed.

Allowable Subject Matter

3. Claims 40 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 12/9/05 have been fully considered but they are not persuasive.

Applicant argues that Kim et al. states the clear intent for the insulating system with focus on cut through resistance, and there is nothing in Kim et al. to suggest that his thermoset composition would have application in wire and cable. This argument is not found persuasive. Kim et al., [0020], states his invention comprising a plurality of bunched, twisted or bundled wires, wherein the wires are coated either directly or indirectly with the dual layer insulation system.

In response to applicant's argument that claim 43 has been narrowed to recite polypropylene being employed as high melting superior thermoplastic insulating resins and that Kim et al. avoids any consideration of polypropylene because of the difficulty in crosslinking, the limitation of the inner layer being formed of polypropylene or polypropylene copolymer has been cited in claim 47 and has been rejected, see previous Office Action and in this instant Office Action, and Kim et al., [0030], does disclose the inner layer being formed of polypropylene copolymer.

Summary

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Chau N Nguyen', with a stylized flourish at the end.

Chau N Nguyen
Primary Examiner
Art Unit 2831